

4.6 CULTURAL, HISTORICAL, AND PALEONTOLOGICAL RESOURCES

This section addresses potential impacts to cultural, historical, and paleontological resources that would potentially result from the development of the Project. No historic buildings or structures are present within the onshore Ellwood Marine Terminal (EMT) facilities.

4.6.1 Environmental Setting

Archaeological Resources

The EMT is located within the Barbareño Chumash cultural area, which includes evidence of human occupation dating to over 9,500 years ago. Due to the rich food resources found on land and in the sea, Native American populations grew over time and their organization became more complex. The area's various sources of fresh water including Tecolote and Winchester Canyon creeks to the west and Glen Annie Creek and the Goleta Slough to the east were ideal locations for permanent and semi-permanent village settlements that provided abundant fish, birds, and plants for hunting and gathering.

Current models of cultural evolution along the Santa Barbara Channel recognize that prehistoric peoples through time became increasingly dependent upon marine resources though they required greater energy to procure. Populations also became less dependent upon terrestrial resources such as large game animals due to reduced numbers of game. The need for more sophisticated subsistence technologies and group cooperation resulted in increasingly complex cultural interactions, culminating in the Chumash culture and complex social organization encountered by the Spanish in the 1500s (Arnold et. al. 1997; Glassow et. al. 1990; Wilcoxon et al. 1982). Climatic change during the transition from the Middle to Late Period around A.D. 1150 to 1300 may have played an important role in this process (Raab and Larson 1997), although others consider that pressures from increased population were also involved (Arnold et al.1997).

A cultural resources record search of relevant archaeological and historic documents was undertaken within ¼ mile (400 m) of and within the EMT to identify existing resources that would be potentially affected by the Project (a Confidential Appendix has been prepared for submittal to the appropriate regulatory agencies). The following provides a summary of those findings.

1 A record search of the California Archaeological Inventory at the Central Coast
2 Information Center (CCIC) housed at the Department of Anthropology, University of
3 California, Santa Barbara (UCSB) was performed July 28, 2005, to identify recorded
4 investigations and archaeological sites within ¼ mile (400 meters [m]) of the EMT. Nine
5 archaeological studies have been performed within ¼ mile (400 m) of the EMT. Three
6 of the nine studies performed covered the EMT.

7 Five recorded prehistoric sites are located within ¼ mile (400 m) of the EMT. Two of
8 the nine recorded prehistoric sites, CA-SBA-1327 and CA-SBA-2341, are located within
9 the EMT.

10 CA-SBA-1327 is described as a scatter of chipped stone artifacts used for food
11 processing and tool manufacture, i.e., retouched flakes and cores, ground stone milling
12 artifacts for seed processing, a pestle fragment, oval manos, shellfish, and animal bone
13 covering a 200 x 200 meter (656 x 656 foot) area. The cultural material was observed
14 in man-made embankments and graded areas around oil storage tanks and associated
15 facilities. Two pieces of human bone were noted in the man-made embankments.

16 CA-SBA-2341 is described as a midden (soil created by decomposition of prehistoric
17 food remains over time) containing chipped stone artifacts (a projectile point, biface
18 knives, and chert and obsidian waste flakes resulting from tool manufacture), ground
19 stone artifacts (bifacial manos), a bone awl for punching holes in leather or use in
20 basketry, shellfish, bone, and fire-affected rock from campfires. Limited significance
21 testing indicated the midden covered a 55 x 50 meter (180 x 164 foot) area and was 70
22 centimeters (27 inches) deep. The midden appeared to be fairly intact (undisturbed)
23 despite previous grading activities.

24 Both CA-SBA-1327 and CA-SBA-2341 appear to have served as long-term camps
25 where more permanent and extensive occupation took place, based on the diverse
26 accumulation of prehistoric cultural material including food remains and tools.
27 Archaeological investigations have demonstrated that the integrity of the sites has been
28 compromised in large part by modern ground disturbances (SAIC 2000); however, it is
29 possible that intact portions of both sites exist. If present, these intact portions of CA-
30 SBA-1327 and CA-SBA-2341 have the potential to help us understand how prehistoric
31 populations exploited nearby foods, together with marine resources in the vicinity.

Paleontological Resources

The EMT is situated on Pleistocene older alluvium deposits, consisting primarily of relatively unconsolidated silt, sand, and gravel. These alluvial deposits overlie the Miocene Sisquoc Formation, which is exposed in the coastal bluff northwest of the project area and consists of silty, diatomaceous, clay shale. The majority of the onshore portion of the marine loading line similarly traverses older alluvium, underlain by Sisquoc Formation; however, the seaward 200 feet (60 m) of the pipeline is underlain by beach sand deposits (Dibblee 1987).

Paleontological resources are generally found in sedimentary rock units in which the boundaries of a sedimentary rock unit define the limits of paleontologic sensitivity in a given region. Paleontological sites are normally discovered in cliffs, ledges, steep gullies, or along wave-cut terraces where vertical rock sections are exposed. Fossil material may be exposed by a trench, ditch, or channel caused by construction.

Paleontologists examine invertebrate fossil sites differently than vertebrate fossil sites. Invertebrate fossils in microscopic form such as diatoms, foraminifera, and radiolarians can be so prolific as to constitute major rock material in some areas. Invertebrate fossils normally are marine origin and are widespread, abundant, fairly well preserved, and predictable as to fossil sites. Therefore, the same or similar fossils can be located at any number of sites throughout Central California.

Vertebrate fossil sites are usually found in non-marine or continental deposits. Vertebrate fossils of continental material are usually rare, sporadic, and localized. Scattered vertebrate remains (mammoth, mastadon, horse, groundsloth, camel, and rodents) have been identified from the Pleistocene non-marine continental terrace deposits on Vandenberg Air Force Base (Gray 2003), but these resources would not be expected in the project site and vicinity.

The invertebrate fossils that would be expected to exist within project site geologic rock units are widespread and abundant in many areas throughout the Pacific Coastline including Santa Barbara County (Gray 2003). The overwhelming bulk of invertebrate fossil material in these rocks is due to the deposition of sediment in marine basins. Very seldom are vertebrate marine fossils such as whale, porpoise, seal, or sea lion found in marine rock units such as the Miocene Monterey Formation and the Pliocene Sisquoc Formations found within the EMT project site and vicinity. Therefore, the sensitivity for encountering important paleontological resources within the EMT project site and vicinity is considered very low.

4.6.2 Regulatory Setting

State

Cultural Resources

The California Coastal Act of 1976 (Public Resources Code [PRC] sections 30000 *et seq.*), as amended, addresses impacts on archaeological resources. Section 30244 requires reasonable mitigation measures where development would adversely impact archaeological resources as identified by the State Historic Preservation Officer.

The State CEQA Guidelines section 15064.5 provides the basis for determining the significance of archaeological and historical resources. Their application to the proposed Project is discussed below in Section 4.6.3, Significance Criteria.

Paleontological Resources

There is no Federal legislation designed specifically for the management and protection of paleontological resources, although the Antiquities Act of 1906 has been used by Federal agencies to protect these resources on Federal land. Professional societies such as the Society of Vertebrate Paleontologists (SVP) and the Board of Earth Science of the National Research Council have attempted, thus far unsuccessfully, to get Congress to approve legislation for paleontological resources. Under strong pressure from the SVP and other organizations, the U.S. House of Representatives and the Senate are considering bills that strengthen the protection of vertebrate fossils through stronger penalties and provide clear management guidelines to Federal land managers.

The SVP also demands that professional paleontologists take the lead in the ethical treatment of paleontological remains. Recently, the SVP membership approved Article 9, Statement of Ethics, which applies to all SVP members. One part of the statement affirms that:

“...the barter, sale, or purchase of scientifically significant vertebrate fossils is not condoned unless it brings them into or keeps them within a public trust. Any other trade or commerce in scientifically significant vertebrate fossils is inconsistent with the foregoing in that it deprives both the public and professionals of important specimens which are a part of our natural heritage [Article 9, Statement of Ethics].”

Section 30244 of the PRC also addresses impacts to paleontological resources. Where development would adversely impact paleontological resources, as identified by the State Historic Preservation Officer, reasonable mitigation measures are required.

Section 5097.5 of the California PRC prohibits excavation or removal of any “vertebrate paleontological site or historical feature, situated on public lands, except with the express permission of the public agency having jurisdiction over such lands.” Penal Code Section 623 spells out regulations for the protection of caves, including their natural, cultural, and paleontological contents. It specifies that no “material” (including all or any part of any paleontological item) will be removed from any natural geologically formed cavity or cave.

Local

Cultural Resources

The Santa Barbara County Coastal Plan has several policies that address the preservation of significant cultural resources. Policy 10-1 states that all available measures must be explored to avoid development on significant historic, prehistoric, archaeological and other classes of cultural sites. Policy 10-2 states that project design shall be required to avoid impacts on archaeological or other cultural sites if possible. Policy 10-3 states that where avoidance of construction impacts is not possible, adequate mitigation shall be required in accord with State Office of Historic Preservation and Native American Heritage Commission guidance. Policy 10-4 states that indirect activities including off-road vehicle use, unauthorized artifact collection or similar actions capable of destroying or damaging archaeological or cultural sites is prohibited. Policy 10-5 states that Native Americans shall be consulted when development is proposed that would potentially impact significant archaeological or cultural sites.

Santa Barbara County Cultural Resource Guidelines provide direction to archaeologists on what types of research topics and research questions are appropriate to determine the significance of an archaeological site.

Paleontological Resources

There are no local guidelines, including policies within the Santa Barbara County Coastal Plan, that address the preservation of or consideration for paleontological resources during the planning process.

4.6.3 Significance Criteria

Cultural Resources

The State CEQA Guidelines section 15064.5 defines a significant cultural resource, either prehistoric or historic, as a “historical resource.” A historical resource is defined as:

1. A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (PRC section 5024.1, Title 14 CCR, section 4850 *et seq.*).
2. A resource included in a local register of historical resources, as defined in section 5020.1(k) of the PRC or identified as significant in an historical resource survey meeting the requirements section 5024.1(g) of the PRC, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
3. Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California may be considered to be an historical resource, provided the lead agency’s determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered by the lead agency to be “historically significant” if the resource meets the criteria for listing on the California Register of Historical Resources (PRC section 5024.1, Title 14 CCR, section 4852) including the following:
 - (A) Is associated with events that have made a significant contribution to the broad patterns of California’s history and cultural heritage;
 - (B) Is associated with the lives of persons important in our past;
 - (C) Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
 - (D) Has yielded, or may be likely to yield, information important in prehistory or history.

4. The fact that a resource is not listed in, or determined to be eligible for listing in the California Register of Historical Resources, not included in a local register of historical resources (pursuant to section 5020.1[k] of the PRC), or identified in an historical resources survey (meeting the criteria in section 5024.1[g] of the PRC) does not preclude a lead agency from determining that the resource may be an historical resource as defined in PRC sections 5020.1(j) or 5024.1.

If present, intact portions of CA-SBA-1327 and CA-SBA-2341 would have the potential to help us understand how prehistoric populations exploited nearby foods, together with marine resources in the vicinity, and be likely to yield information important in prehistory (Criterion d.). CA-SBA-1327 and CA-SBA-2341 therefore are potentially significant resources under CEQA.

The State CEQA Guidelines section 15064.5 provides significance threshold criteria for determining a substantial adverse change to the significance of a cultural resource:

1. Substantial adverse change in the significance of an historical resource means physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired.
2. The significance of an historical resource is materially impaired when a project:
 - (A) Demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for, inclusion in the California Register of Historical Resources; or
 - (B) Demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources pursuant to section 5020.1(k) of the PRC or its identification in an historical resources survey meeting the requirements of section 5024.1(g) of the PRC;
 - (C) Demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for purposes of CEQA.

Paleontological Resources

The State CEQA Guidelines Appendix G, Environmental Checklist Form, provides a suggested significance threshold for paleontological resources:

- Would directly or indirectly destroy a unique paleontological resource or site or unique geologic feature.

4.6.4 Impact Analysis And Mitigation

Cultural Resources

Direct impacts on cultural resources result from ground disturbances directly and indirectly caused by facility operation or maintenance. Indirect impacts resulting from increased access to archaeological sites, i.e., construction or facility employees including unauthorized artifact collecting is a potential indirect impact.

Impact CR-1: Adverse Impacts from Oil Spills

An accidental oil spill and subsequent clean-up efforts would potentially result in disturbance to and unauthorized archaeological artifact collection from CA-SBA-1327 and/or CA-SBA-2341 deposits (Potentially Significant, Class II).

Impact Discussion

No new grading, excavations, or construction would occur in association with the proposed Project. However, lease renewal would extend the use of the marine loading line. This would in turn extend the associated risk of potential failure of the line, oil storage tanks, and/or other infrastructure. Because the potential for spills already exists within the project area, the size of a potential spill event and its consequence would not necessarily be increased. However, the facility's extended span of activity associated with the lease renewal would increase the probability for a spill to occur that could possibly impact intact cultural resources.

Small leaks or spills, which are contained and remediated quickly, would have minor or negligible impacts to adjacent archaeological resources. In contrast, large spills, or pipeline or tank ruptures that could spread over larger areas, would require more expansive containment and ground disturbances. If intact cultural remains were encountered during clean-up ground disturbances, the potential for destruction of these

remains would be a significant impact (Class II) that would be reduced below significance criteria with implementation of Mitigation Measure (MM) **CR-1a**.

CA-SBA-1327 and CA-SBA-2341 would potentially be exposed during clean-up efforts, and personnel would have a short-term access to artifacts. Potential unauthorized collection of artifacts during clean-up efforts would contribute to the destruction of site integrity and would be a significant impact (Class II) that can be reduced below significance criteria with implementation of **MM CR-1a**.

Mitigation Measures

Venoco currently maintains an Emergency Action Plan that addresses spill response actions to be completed in the event of a “significant event.” In addition, Venoco also maintains an Oil Spill Contingency Plan (OSCP) to address spills that could potentially occur from the EMT and the onshore pipeline (Venoco 2005).

CR-1a. Oil Spill Contingency Plan. The Oil Spill Contingency Plan (OSCP) shall be revised and updated to specifically address protection of cultural resources that could be disturbed during an oil spill or cleanup activities. The process to revise the OSCP shall, at a minimum, include:

- (1) A workshop shall be conducted by a qualified archaeologist and by a local Native American representative identified as a most likely descendant of the Barbareño Chumash by the Native American Heritage Commission to ensure that any new discoveries during oil spill cleanup activities are adequately recorded, evaluated, and, if impacted, mitigated. The workshop shall:
 - a. review the types of archaeological resources that may be uncovered;
 - b. provide examples of common archaeological artifacts and other cultural material to examine;
 - c. what makes an archaeological resource significant to archaeologists and local Native American descendants;
 - d. procedures that would be used to record, evaluate, and mitigate new discoveries;

e. describe reporting requirements and the responsibilities of spill response personnel.

The revised OSCP shall, at a minimum, provide

(1) that a qualified archaeologist and Native American representative shall be present during all ground disturbances within recorded CA-SBA-1327 and/or CA-SBA-2341 site boundaries.

(2) procedures that would be followed in case of discovery of disturbed as well as intact human burials and burial-associated artifacts. In the event that human remains would be encountered, the consultation with the most likely Native American descendant pursuant to PRC sections 5097.97 and 5097.98 would apply.

Rationale for Mitigation

MM CR-1a would provide greater specificity to the OSCP by: familiarizing and training spill response personnel to be more sensitive to and identify cultural resources. This would help reduce the potential for oil spill-induced impacts on potentially significant cultural resources CA-SBA-1327 and CA-SBA-2341. Qualified archaeological and Native American personnel would be capable of assessing impacts on recorded archaeological sites if ground disturbances were required.

MM CR-1a would reduce potential oil spill-induced impacts on cultural resources by discouraging unauthorized artifact collection. The measure would provide greater specificity to the OSCP that would help minimize the potential for increased illicit artifact collection during potential oil spill clean-up activities by educating workers to the importance of preserving the location and integrity of individual archaeological artifacts and by providing monitors on site.

Paleontological Resources

The Project is expected to have a less than significant impact or no impact associated with the environmental issues identified below.

Impact CR-2: Potential Disturbance to Paleontological Resources due to an Oil Spill

An accidental oil spill and subsequent clean-up efforts would have only a remote potential to impact significant vertebrate fossils (Less Than Significant, Class III).

Impact Discussion

Potential ground disturbances associated with oil spill cleanup activities would occur within geologic rock formations known to include invertebrate fossils that are widespread, abundant, fairly well preserved, and not unique. The invertebrate fossils that would be expected to exist within project site geologic rock units are widespread and abundant in many areas throughout the Pacific Coastline including the Santa Barbara County (Gray 2003). Therefore, potentially significant vertebrate fossil are not expected in the project site and vicinity. Because the potential for encountering important paleontological resources within the EMT project site and vicinity is considered very low, potential impacts from ground disturbances associated with oil spill cleanup are considered an adverse but less than significant impact (Class III).

**Table 4.6-1
Summary of Cultural Resources Impacts and Mitigation Measures**

Impact (Impact Class)	Mitigation Measures
CR-1: Adverse impacts from oil spills (Class II).	CR-1a. Revise and update Oil Spill Contingency Plan
CR-2. Potential disturbance to paleontological resources due to an oil spill (Class III).	None required.

4.6.5 Impacts Of Alternatives

No Project Alternative

Under the No Project Alternative, Venoco's lease would not be renewed and the existing marine terminal would be subsequently decommissioned with its components abandoned in place, removed, or a combination thereof. Under the No Project Alternative, an alternative means of crude oil transportation would either need to be in place prior to decommissioning of the EMT or production at Platform Holly would cease. It is more likely, however, that under the No Project Alternative, Venoco would pursue alternative means of traditional crude oil transportation such as truck transportation or a pipeline. Potential for direct and indirect impacts on cultural resources from an

accidental oil spill and subsequent cleanup would remain until operations at the EMT cease. However, facility abandonment would potentially result in impacts on CA-SBA-1327 and CA-SBA-2341 from demolition of existing infrastructure and removal of soils exposed to hazardous materials. These activities would be regulated by a State and local abandonment plan including conditions ensuring the confinement of ground disturbances outside of archaeologically sensitive areas. However, during demolition, if any cultural resources are encountered, access to these resources and unauthorized collection would be increased. Thus, a new impact, similar to Impact **CR-1**, would be significant and adverse, but reduced below significance criteria (Class II) with implementation of a measure that would require development and implementation of a Cultural Resources Monitoring Plan that would include the provisions listed in **MM CR-1a**.

Potential impacts on paleontological resources (Impact **CR-2**) could be adverse, but less than significant (Class III), as the potential to disturb significant vertebrate fossil remains during facility abandonment would remain remote.

Truck Transportation

Under this method of crude oil transportation, a truck loading rack would be constructed at the EOF to accommodate the necessary truck loading requirements, and a truck unloading facility would be required at the Venoco Carpinteria Facility to transfer crude oil from the truck to an existing storage tank at the facility. Construction of truck loading and unloading facilities would be done within the existing facilities and would not likely impact cultural resources.

Trucks from the EOF to the Venoco Carpinteria Facility would travel approximately 27 miles (43 km) each way. Impacts on cultural resources from trucking would only occur in the event of an accident that resulted in a spill in an archaeologically sensitive area. There are several major coastal drainages along Highway 101 between the EOF and the Venoco Carpinteria Facility. The banks above these drainages, particularly in the coastal plain between the Pacific Ocean and the Santa Ynez Mountain foothills, are considered archaeologically sensitive as campsites and special use areas were often located in the proximity of fresh water sources. Equipment activity associated with soil removal within and adjacent to these drainages could result in potentially significant impacts on known and/or previously unrecorded sites. Impacts, which are similar to **CR-1**, but specific to other locations, would be significant (Class II), but reduced below significance criteria with implementation of **MM CR-1a**.

Potential impacts on paleontological resources (Impact **CR-2**) could be adverse, but less than significant (Class III), as potential spill clean up activities would occur in similar marine, sedimentary geologic rock units along the coastal terrace south of US 101. These formations would also have only a remote potential to include significant vertebrate fossil remains.

Pipeline Transportation

This alternative method of oil transportation would involve the construction of an onshore pipeline from the EOF to the All-American Pipeline (AAPL) at Corral/Las Flores Canyon (see Figure 3-2). Impacts on cultural resources associated with this alternative would result from grading, cut-and-fill excavation, clearing/removal of trees, brush, and boulders, trenching, and excavation of bore pits and reception pits associated with construction of the pipeline.

A record search of the California Archaeological Inventory at the CCIC housed at the Department of Anthropology, UCSB was performed July 28, 2005, to identify recorded archaeological sites within ¼ mile (400 m) of the alternative pipeline corridor (a Confidential Appendix has been prepared for submittal to the appropriate regulatory agencies). Forty-five recorded prehistoric and historic archaeological sites are located within ¼ mile of the pipeline. Eight of the recorded archaeological sites are located in the pipeline corridor.

Coastal drainages such as Tecolote Canyon, Eagle Canyon, Las Llagas Canyon, Canada de la Destiladera, Canada del Capitan, and Canada del Corral are considered to be highly sensitive zones for prehistoric archaeological resources due to a year-round source of freshwater, and an ideal location for permanent and semi-permanent settlements due to the presence of fresh water and rich food resources, i.e., the abundance of birds, foraging animals, plants that were hunted and gathered. The majority of recorded archaeological sites along the pipeline corridor are concentrated along these coastal drainages, and include long-term campsites as well as special use areas.

For most of the route, the pipeline would be within or adjacent to existing roadways, an area that generally has been previously disturbed. Even though the integrity of the soil in such an area has most likely been compromised by modern ground disturbances, it is still possible that isolated pockets of intact cultural remains exist within road

1 construction right-of-ways. If these materials existed and were encountered during
2 construction, a potentially significant impact (Class II) would result.

3 In addition, potential oil spills from the pipeline also have the potential to affect cultural
4 resources from subsequent cleanup and remediation activities. The primary concern
5 would be spills in areas adjacent to coastal drainages that have a high sensitivity for
6 prehistoric archaeological resources. Impacts, which are similar to **CR-1**, but specific to
7 other locations along the pipeline ROW, would be significant and adverse, but reduced
8 below significance criteria (Class II) with implementation of **MM CR-1a**, the same as
9 would occur with the proposed Project.

10 Potential impacts on paleontological resources (Impact **CR-2**) could be adverse, but
11 less than significant (Class III), as potential spill clean up activities would occur in similar
12 marine, sedimentary geologic rock units along the coastal terrace adjacent and north of
13 US 101. These formations would also have only a remote potential to include
14 significant vertebrate fossil remains.

15 **4.6.6 Cumulative Projects Impact Analysis**

16 Prehistoric archaeological sites are non-renewable resources that have been destroyed
17 at an alarming rate State-wide and locally. It has been estimated that more than 80
18 percent of all sites in coastal Santa Barbara have been destroyed by coastal
19 development. Therefore, the assessment of potential cumulative impact on cultural
20 resources within the proposed project area considers these past activities resulting in
21 loss of archaeological sites, along with other probable future projects in the vicinity.

22 Proposed projects, including the Comstock Homes Development, Sandpiper Golf
23 Course Renovations, Residences at Sandpiper, UCSB North Parcel Faculty Housing,
24 UCSB Sierra Madre Student Housing, UCSB West Campus Faculty Housing,
25 Expansion of the Orfalea Children's Center, Ocean Meadows Residences, Ocean
26 Meadows Golf Course Improvements, and the Devereux School Master Plan (see Table
27 4-1) would involve ground disturbances that would potentially impact cultural resources
28 in an archaeologically sensitive area adjacent to freshwater sources.

29 In many cases, site redesign or use of fill could minimize potentially significant, adverse
30 impacts. Total avoidance of cultural resources would not be reasonably expected,
31 however, and increased human activity in the vicinity of cultural resources would lead to
32 greater exposure and potential for unauthorized artifact collection and inadvertent
33 disturbance during construction. Therefore, cumulative impacts to archaeological

resources caused by past, present, and future probable projects in the undeveloped coastal areas in the vicinity of the EMT are considered significant. The city of Goleta and Santa Barbara County both have policy considerations and standard mitigations for addressing the potential for ground disturbances to impact cultural resources including requiring surveys in archaeologically sensitive areas, field investigations to precisely delineate site boundaries, significance assessments, and when required to mitigate significant resources, data recovery programs. Construction monitoring by qualified archaeologists and local Native American representatives is also required for disturbances within archaeological site boundaries. These measures would ensure that cumulative significant impacts (Class II) on cultural resources would be reduced to below significance criteria.

The proposed Project would potentially result in potential direct and indirect impacts on two recorded archaeological sites within the EMT, CA-SBA-1327 and CA-SBA-2341. In the event that archaeological deposits were encountered during oil spill clean-up efforts, proposed **MM CR-1a** would reduce this contribution to cumulative impacts (Class II) on cultural resources below significance criteria.

The proposed Project would not have the potential to substantially contribute to cumulative impacts on paleontological resources.

This page intentionally left blank.